

Recombinant Mouse CLC6A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51934

Size: 10ug, 100ug

Protein Name: C-type lectin domain family 6 member A (C-type lectin superfamily member 10) (Dendritic cell-associated C-type lectin 2) (DC-associated C-type lectin 2) (Dectin-2)

Synonym: Clec6a, Clec4n, Clecsf10, Dectin2

UniProt ID: Q9JKF4

UniProt Link: www.uniprot.org/uniprotkb/Q9JKF4/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 209 AA

Molecular Weight: 24 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MVQERQSQKGVCWTLRLWSAAVISMLLLSTCFIASCVVITYQFIMDQPSRRLYELHTYHSSLTCFSE
GTMVSEKMWGCCPNHWKSFGSSCYLISTKENFWSTSEQNCVQMGAHLVVINTEAEQNFITQQLNE
SLSYFLGLSDPQGNGKWQWIDDTFQSNVRFWHPHEPNLPEERCVSIVYWNPSKWGWNDVFCDS
KHNSICEMKKIYL

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant C-type lectin domain family 6 member A (C-type lectin superfamily member 10) (Dendritic cell-associated C-type lectin 2) (DC-associated C-type lectin 2) (Dectin-2) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Calcium-dependent lectin that acts as a pattern recognition receptor (PRR) of the innate immune system: specifically recognizes and binds alpha-mannans on *C.albicans* hyphae (PubMed:17050534, PubMed:19703985, PubMed:20493731). Binding of *C.albicans* alpha-mannans to this receptor complex leads to phosphorylation of the immunoreceptor tyrosine-based activation motif (ITAM) of FCER1G, triggering activation of SYK, CARD9 and NF-kappa-B, consequently driving maturation of antigen-presenting cells and shaping antigen-specific priming of T-cells toward effector T-helper 1 and T-helper 17 cell subtypes (PubMed:17050534, PubMed:19703985, PubMed:20493731, PubMed:32358020). Also recognizes, in a mannose-dependent manner, allergens from house dust mite and fungi, by promoting cysteinyl leukotriene production (PubMed:19124755). Recognizes soluble elements from the eggs of *Shistosoma mansoni* altering adaptive immune responses (PubMed:21059925).

Subcellular Localization: Cell membrane ; Single-pass type II membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.